Clarifications for queries received for enquiry no: BESCOM/2026-26/GW/WORK_INDENT997 Dated:13.02.2026

Sl No	Tender Document Clause/Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarification
1	2.2.1 General Pg 8	OEM Scope	Only Supply of Line Recloser, RMU & Single Breaker panel shall be in OEM scope. Unloading , Erection, testing , commissioning , Site testing , storage etc shall be out of our scope	Tender condition prevails
2	Delivery schedule		Based on qty being high, kindly confirm the deliver schedule required	Tender condition prevails
3	1. Introduction Pg 4	This section of the bidding documents presents the Technical Specifications that apply to Line Reclosers and Load Break Switches. The specifications cover the supply and installation of SCADA-ready Line Reclosers (LRCs) and Load Break Switches (LBSs) within the overall context of the Employer's. For the purposes of these Technical Specifications, the LRC and LBS devices are commonly or collectively referred to as sectionalizers.	We shall be Offering Line Reclosers In place of Load break switches also. Based on Site application , term Sectionalizer can be used for reclosers .	Tender condition prevails
4	1.1 Key Sectionalizers Components Pg 4	Integrated line sensors for metering.	Integrated line sensors shall be used for indicative metering only. The primary function of these sensors are for protection & not for metering	Tender condition prevails
5	1.1 Key Sectionalizers Components Pg 4	Fault passage indicator (or equivalent).	FPI not applicable as we are offering Line Reclosers. Kindly clarify your requirement	Tender condition prevails
6	1.1 Key Sectionalizers Components Pg 4	Remote terminal unit (RTU) serving as the interface by which the DAS can monitor and control the sectionalizer	We can offer Modem inside the Recloser control cabinet for communication with SCADA. However , the equipments required at Control centre shall be out of our scope.	Tender condition prevails
7	1.1 Key Sectionalizers Components Pg 4	Surge arresters	kindly provide detailed specifications for the same for offering	Tender condition prevails
8	1.1 Key Sectionalizers Components Pg 4	All necessary cables, insulators, cross-arms, and other accessories to complete installation of each sectionalizer on Reinforced Cement Concrete Double-Pole or Pre-stressed Concrete Spun Pole structures as exist or will be erected by others.	Only Mounting structure shall be in our scope . Rest of the equipments shall be Out of our scope.	Tender condition prevails
9	1.4 Environmental Conditions Pg 6	Altitude above mean sea level 1200m	The altitude level of the installation sites mentioend in the tender is upto or below 1000m . Kindly confirm	Acceptable
10	2.1.1 Availability Pg 7	Each sectionalizer shall exhibit an availability of greater than 99.5%. To ensure this high degree of availability, the sectionalizers shall be fabricated, assembled, and finished with workmanship of the highest production quality and shall conform to all applicable quality control standards. All materials comprising the sectionalizer shall be new, unused, and of the best industrial grade, and the sectionalizer shall incorporate all recent improvements in both design and materials. All components shall be of current production from reliable component manufacturers.	The performance and availability of the Recloser shall be dependant on various factors like Installation locations, site conditions, handling , maintenance routines etc. Hence availability is not a parameter that can be agreed upon . However warranty against manufactuing defects shall be provided for the agreed DLP .	Tender condition prevails
11	2.1.3 Life Span Pg 7	Each sectionalizer shall have a design life of at least 20 years from the date of commission	As there might be delays in commissioning in few specific cases due to site challenges etc which is unrelated to manufacturer , we agree to comply to design life of at least 20 years from the date of supply .	Tender condition prevails
12	2.7.3 Terminal Blocks Pg 10		Shall be as per manufacturer standard practice	Tender condition prevails
13	3. Line Recloser Characteristics Pg 11	Line Recloser (LRC) shall be a SCADA-ready device equipped with circuit breakers, protection relay, auto-recloae circuitry, switch position indicator, line sensors consisting of PTs and CTs, fault passage indicator (or equivalent), and metering devices or circuitry providing voltage, current, power, energy, and power factor readings. In addition, each LRC shall be equipped with an auxiliary transformer, control cabinet, local control panel, RTU, switch power supply, all necessary cables, connectors, and terminal blocks, and all other accessories such as insulators and cross-arms required to erect the LRC components on available pole structures.	FPI not applicable as we are offering Line Reclosers As mentioend , Integrated line sensors shall be used for indicative metering only. The primary function of these sensors are for protection & not for metering	Tender condition prevails
14	3.3 Switch Features Pg 11	Switch operation manually without power supply using a NEMA-head (or equivalent) hook stick and electrically using an internal operating mechanism and control unit.	Only tripping shall be available through Hook stick & supply of hook stick shall be in client scope.	Tender condition prevails
15	3.3 Switch Features Pg 11	Puffer type switch or one that is based on a combination of the rotary and puffer arc-quenching principle.	not applicable as we are offering vacuum type interrupter	Acceptable
16	3-1 – Rated Short Circuit breaking capacity 20 kA Pg 12	Rated short-circuit breaking capacity ≥ 20 kA (11 kV feeder LRC)	in BOQ , its mentioend as 12.5kA. Our Reslosers are rated uptpo 12.5kA-3s. This fault level shall be sufficient for the requirements. Kindly confirm the fault level of 12.5kA	Acceptable
17	Table 3-1: Line Recloser Characteristics Pg 12	Rated Short Circuit breaking capacity (kA - 21kA for 3 sec	in BOQ , its mentioend as 12.5kA. Our Reslosers are rated uptpo 12.5kA-3s. This fault level shall be sufficient for the requirements. Kindly confirm the fault level of 12.5kA	Acceptable
18	Table 3-1: Line Recloser Characteristics Pg 12	28 KV rms for 1 minute or better	It shall be 45kV for 10 seconds	Tender condition prevails
19	Table 3-1: Line Recloser Characteristics Pg 12	CT type accuracy - 5P20	CT type accuracy Shall be 5P10	Tender condition prevails
20	Table 3-1: Line Recloser Characteristics Pg 12	Voltage & burden	230V / 110V can be offered & burden shall be 300VA	Tender condition prevails
21	Table 3-1: Line Recloser Characteristics Pg 12	Potential Transformer for measurement of voltage	Instead of PT (Conventional Instrument transformers) , Voltage sensor shall be offered for protection. Kindly confirm	Voltage & Current sensors shall be acceptable for both protection and metering
22	Table 3-1: Line Recloser Characteristics Pg 12	Operating Sequence /Duty cycle O-0.3s-CO-1s-CO-1s-CO 1st Reclosing : 0.1 – 1,800sec (Adjustable) 2nd – 4th Reclosing : 1 – 1,800sec (Adjustable) (Adjustable in steps of 0.01sec)	We confirm that The operating cycle of our recloser shall be : O-0.2s-CO-2s-CO-2s-CO	Acceptable
23	Table 3-1: Line Recloser Characteristics Pg 12	Degree of Protection for switching & control unit - IP68	IP68 not applicable for Line Recloser. We shall offer IP55 for outdoor installation .	Amendment condition prevails
24	Table 3-1: Line Recloser Characteristics Pg 12	Dust-tight and waterproof switch enclosures of stainless steel type 316L. Gasket and bolted seals shall not be used on pressurized tanks. Bushings, however, may be sealed using "O" rings. Water condensation shall be prevented.	We shall offer enclosure with SS 304 grade and shall be suitable for IP55 Degree of protection	Tender condition prevails

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25	Table 3-1: Line Recloser Characteristics Pg 12	Enclosures with standard protection against corrosion. The finishing coat shall be grey (RAL 7032).	As we are offering SS enclsoure , painting shall not be applicable	Tender condition prevails
26	Table 3-1: Line Recloser Characteristics Pg 12	Manual operating handle with operating hook(s) suitable for use with a NEMA-head (or equivalent) hook stick from ground level. At least one hook stick of suitable length shall be provided for every 5 LRCs.	supply of hook stick shall be in contractor scope.	Tender condition prevails
27	Table 3-1: Line Recloser Characteristics Pg 12	Auxiliary contacts for status indicators and signals.	As per Manufacturer std	Tender condition prevails
28	Table 3-1: Line Recloser Characteristics Pg 12	One (1) bar-tap tee connector per main circuit lead for connecting to ACSR conductors of size Coyote and Rabbit.	please brief the requirement	Amendment condition prevails
29	Table 3-1: Line Recloser Characteristics Pg 12	Pressure releasing device for protection against pressure build-up higher than the permissible design pressure, but for switches of dead-tank type only.	Not applicable for our design	Amendment condition prevails
30	3.4 Line Sensor Features Pg 12	3.4.1 Current Sensors & 3.4.2 Voltage Sensors	Shall be as per manufacturer standard practice	Tender condition prevails
31	3.5 Protection Features Pg 12	A suitable low pass filter with 3rd harmonic rejection shall be supplied. Both the SEF function and its filter shall be described in the Contractor's bid.	Low pass filter Not in our scope of supply	Tender condition prevails
32	3.5.3 Earth Fault Function Pg 17	regarding CT inputs in relay	Our offered relay for Line recloser has 4 CT inputs . 3 shall be used for phase , 1 for sensitive earth fault and earth fault will be derived from phase CT.	Tender condition prevails
33	3.6 Local Control Panel Pg 18	Separate discrepancy switches for opening and closing the LRC switches. Discrepancy switch operation shall be possible using the backup power supply system when the AC power supply is off.	As we are offering mechanically ganged equipment, discrepany switches not applicable	Tender condition prevails
34	3.7 Distribution Automation System Interface Pg 19	The LBS shall be monitored and controlled by the DAS. In this respect, the LBS's integral RTU shall be capable of interfacing with the radio/modem to be provided and installed in the LBS control cabinet.	RTU unit for Recloser will be offered as separate outdoor unit mountable similar to the control panel mentioned due to space constraint in the offered Local control panel. Kindly confirm regarding this	Tender condition prevails
35	3.8 Control Cabinet Pg 19	All electronic parts shall be enclosed in modules that protect them from entry of small insects. The power supply module in particular shall be physically separated from all other modules.	We shall offer enclosure with for IP55 Degree of protection .	Tender condition prevails
36	3.8 Control Cabinet Pg 19	protection level of IP 56 or better. The control cabinet itself shall have an overall	It shall be IP55 for outdoor installation	Tender condition prevails
37	3.8 Control Cabinet Pg 19	A number lock/Digital lock of adequate size shall be provided to Control Cabinet	We can offer standard padlock . Additionally , if digital lock is required mandatorily , it shall be in scope of client	Tender condition prevails
38	3.9 Auxiliary Power Transformer Pg 20	The LRC shall provide a single-phase auxiliary power transformer of outdoor cyclo-aliphatic resin cast type. The transformer shall be suitable for phase-to-ground connection to the 11-kV distribution network in order to provide a 230 VAC, 500vA output for distribution to the SPS	230V / 110V can be offered & burden shall be 300VA	Tender condition prevails
39	3.10 Switch Power Supply Pg 21	The backup battery bank shall include 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each.	Shall be as per battery manufacturer standard practice. However , it shall be of 26Ah	Tender condition prevails
40	3.10 Switch Power Supply Pg 21	Each Lithium Iron Phosphate (LiFePO4) battery system shall be provided with an integrated BMS providing : cell voltage and temperature monitoring, state-of-charge and state-of-health estimation, cell balancing, over/under-voltage, over/under-temperature, over-current and short-circuit protection.	Not offered as per Battery manufacturer design	Tender condition prevails
41	3.10 Switch Power Supply Pg 21	Battery compartment shall feature a theft-proof enclosure of 2mm thick stainless steel (Grade 316, IP54 rated), secured solely by M8 shear-head vandal-proof nuts/bolts. Tamper detection via NC micro-switch on seams/hinges shall trigger a 100 dB piezoelectric hooter with LED strobe (latched, DC-backed), silenced via separate external "Acknowledge" button while retaining LED, and reset via distinct "Reset" button post-rectification; alarms integrate with RTU/SCADA. All wiring, including battery links and sensors, shall use armored cut-proof cables (2.5 sq mm copper with steel braid/sheath resistant to cutters/grinders).	Not offered as per Battery manufacturer design	Tender condition prevails
42	3.10 Switch Power Supply Pg 21	The minimum battery life expectancy shall be 10 years at 25oC.	minimum battery life expectancy shall be as per battery manufacturer std practice.	
43	3.10 Switch Power Supply Pg 21	Battery chargers shall be provided with the following alarms as a minimum	Warranty shall be from 6 months from the date of dispatch . We can only provide indications : BATTERY HEALTHY & BATTERY UNHEALTHY	Tender condition prevails Tender condition prevails
44	3.11 Measurement Functions Pg 22	The equipment supplied with the LRC shall meet the following requirements with respect to the measurements to be derived from primary voltage and current values	The below mentioned measurement options are available in the relay:- a. Three-phase current measurement b. Sequence current measurement c. Residual current measurement d. Three-phase voltage measurement e. Sequence voltage measurement f. Three-phase power and energy measurement g. Single-phase power and energy measurement h. Frequency measurement i. Load profile record	Tender condition prevails
45	3.12 Earthing Pg 23	Two No's of separate Rod type earthing to be provided. The earthing has to confirm to relevant IS. The details of earthing to be provided are as given under: 1. Auxiliary Transformer neutral, Auxiliary Transformer body, Auto Reclosers body, control cabinet and all other metallic parts of the structure to be earthed separately using 25 x 3 mm GI strip. 2. Surge arrester / Lighting arrester to be earthed separately using 25 x 3 mm GI strip.	We can offer provision for Earthing . Rest of the equipments or work Shall be out of our scope	Tender condition prevails
46	Table 4-1: Load Break Switch Characteristics Pg 23	Rated short-time withstand current for 3 second - 16kA	Our Reslosers are rated uptpo 12.5kA-3s This fault level shall be sufficient for the requirements. Kindly accept the offered fault level of 12.5kA	Amendment condition prevails
47	4. Load Break Switch Characteristics Pg 23	Page 23 of 42 to Page 31 of 42	As we are offering Line reclosers instead of Load Break switces , kindly find the same reply against similar points mentioned as above for Line reclosers for the entire clauses	Tender condition prevails

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48	4.6 Distribution Automation System Interface Pg 27	The LBS shall be monitored and controlled by the DAS. In this respect, the LBS's integral RTU shall be capable of interfacing with the radio/modem to be provided and installed in the LBS control cabinet.	We offer modem in our Line recloser & Numerical relay with protection features & necessary protocol. Separate RTU unit for Recloser cannot be offered due to space issue. Kindly confirm regarding this	Tender condition prevails
49	5. Remote Terminal Units Pg 32		We offer modem in our Line recloser & Numerical relay with protection features & necessary protocol. Separate RTU unit for Recloser cannot be offered due to space issue. Kindly confirm regarding this	Tender condition prevails
50	5.9 Cybersecurity Requirements for LRC & LBS: Pg 37		Cybersecurity features shall be as per Modem Manufacturer standards	Tender condition prevails
51	6. Test Sets Pg 40	The Contractor shall supply 6 Numbers of sectionalizer test sets in the form of notebook PCs with latest Windows OS with anti-virus & valid license. Each test set shall be capable of being used to perform tests on both the Contractor-supplied line reclosers and load break switches including their RTUs.	Shall be in scope of contractor .	Tender condition prevails
52	7. Surge Arrester Characteristics Pg 41		kindly provide detailed specifications for the same for offering	Tender condition prevails
53	General	Scope	Only Supply of RMUs only in our scope. Erection, testing , commissioning etc shall be out of our scope . Also, Supply of RTU is out of Our scope	Tender condition prevails
54	1.2 RING MAIN UNIT Pg 5	Each RMU shall be equipped with main-line load break switches and a fault passage indicator (FPI). Furthermore, to protect each of its lateral circuits, it shall be equipped with a corresponding set of circuit breakers and numerical relays. The RMU interrupters shall be enclosed in an SF6 and the RMU will include all necessary voltage and current sensors and potential-free contacts	Kindly clarify if Voltage and current sensors are required by BESCOM instead of Conventional instrument transformers .	Tender condition prevails
55	2.1.3 Maintainability Pg 8		We shall provide the O & M Manuals. Training of the product to purchaser shall be provided by RMU Manufacturer on basis on requirement with additional cost .We have not considered any repair kit along with the RMU supply	Tender condition prevails
56	2.1.3 Maintainability Pg 8	If periodic maintenance is required within this period, it shall be possible to perform all such work in the field without extra cost to BESCOM.	Kindly let us know the specific periodic maintenance schedule for the same during Warranty period	Tender condition prevails
57	3.2.1 Design details Pg 15	A suitable provision shall be made to replace only metallic portion of bushing/ part of Bushing without opening of the SF6 chamber, when cable bushing threads are burnt out. The design should ensure that the replacement process does not compromise the sealing integrity of the SF6 gas chamber.	We offer bushings that are replaceable at site & does not involve Gas handling at site .	Tender condition prevails
58	3.2.1 Design details Pg 15	Minium gap between bushing to bushings inside all the cable compartments for proper cable termination will be finalized during design stage. - Minium gap inside all the cable compartments will be finalized during design stage.	Shall be as per type tested design of RMU which is being supplied to DAS projects of BESCOM	Amendment condition prevails
59	3.2.1 Design details Pg 15	To avoid opening of Battery compartment by un-authorized personnel a theft proof arrangement along with annunciation with alarm sufficient decibel shall be provided	Shall be in scope of contractor .	Tender condition prevails
60	3.2.1 Design details Pg 15	Access to the battery compartment shall be secured by a tamper-proof locking mechanism with sturdy enclosure. Unauthorized opening shall be detected and shall activate a local audible annunciation system with a sound level not less than 100 dB. Provision shall be made to monitor unauthorized opening and reset the activated annunciation system remotely.	Kindly elaborate on this requirement	Tender condition prevails
61	3.3 Line sensors Pg 19	The RMU shall be provided with current sensors and voltage sensors. These sensors shall meet the electrical and mechanical ratings as per the relevant standards	Kindly clarify if Voltage and current sensors are required by BESCOM instead of Conventional instrument transformers .	Tender condition prevails
62		Numerical relays	Relay for RMU & SPB shall be C&S make CSDPR V2-300 . Kindly confirm regarding this.	Tender condition prevails
63	3.3.1 CT ratio Pg 20	CTs for Metering: • Material: Epoxy resin cast • Burden: 2.5VA • Ratio: 400-200/1 A • Accuracy Class: 0.2S. CTs for Protection: • Material: Epoxy resin cast • Burden: 5VA • Ratio: 400-200/1 A • Accuracy Class: 5 P 20.	Metering CT : Accuracy class 0.2s can be offered for this ratio of 400-200/1A Protection CT : 2.5VA CT burden is enough to cater the load of microprocessor based relay .Using CTs of burden values higher than required also may lead to inaccurate reading (meter) or inaccurate sensing of fault / reporting conditions (As the accuracy class applies only to loads at rated VA). with accuracy class of 5P10	Amendment condition prevails
64	3.6 Battery Pg 23	Batteries: 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each. - Each Lithium Iron Phosphate (LiFePO4) battery system shall be provided with an integrated BMS providing : cell voltage and temperature monitoring, state-of-charge and state-of-health estimation, cell balancing, over/under-voltage, over/under-temperature, over-current and short-circuit protection.	Not offered as per Battery manufacturer design .	Tender condition prevails
65	3.6 Battery Pg 23	Battery compartment shall feature a theft-proof enclosure of 2mm thick stainless steel (Grade 316, IP54 rated), secured solely by M8 shear-head vandal-proof nuts/bolts. Tamper detection via NC micro-switch on seams/hinges shall trigger a 100 dB piezoelectric hooter with LED strobe (latched, DC-backed), silenced via separate external "Acknowledge" button while retaining LED, and reset via distinct "Reset" button post-rectification; alarms integrate with RTU/SCADA. All wiring, including battery links and sensors, shall use armored cut-proof cables (2.5 sq mm copper with steel braid/sheath resistant to cutters/grinders).	Not offered as per Battery manufacturer design	Tender condition prevails
66	3.6 Battery Pg 23	The batteries shall be of Lithium Iron Phosphate (LiFePO4) type and shall have a minimum life of five (10) years at 25oC.	minimum battery life expectancy shall be as per battery manufacturer std practice. Warranty shall be from 6 months from the date of dispatch .	Amendement condition prevails
67	3.8 Cybersecurity Requirements for RMUs Protection & Metering: Pg 26	Cybersecurity Requirements for RMUs Protection & Metering:	It is mentioned as Suitability for IEC 61850 also . Kindly confirm the communication protocol. This seems to be reference to RTU . Kindly confirm	Tender condition prevails
68	3.12 IP Page 30	The Control Cabinet shall be similar in style and finish as the other RMU enclosures. This shall include having a minimum protection class of IP 56 or better.	The IP shall be IP 54 .	Tender condition prevails
69	2.7 Interconnections Pg 10	Interconnecting Cables, Wiring, Connectors, and Terminal Blocks	Not in scope of RMU manufacturer .	Tender condition prevails
70	3.2.1 Design Details Pg 15	The RMU shall be suitable for mounting on its connecting cable trench	RMU Shall be mounted on plinth/foundation over cable trench necessary reference drawings of foundation shall be submitted from OEM side	Tender condition prevails
71	3.2.1 Design Details Pg 15	The RMU design shall be such that access to live parts shall not be possible without the use of Constructor-supplied tools.	The live parts except cable termination is enscaled in SF6 gas tank for life time. We do not envisage any special tool to access the enscaled tank for our design at site	Tender condition prevails
72	3.2.1 Design Details Pg 15	A suitable provision shall be made to replace only metallic portion of bushing/ part of Bushing without opening of the SF6 chamber, when cable bushing threads are burnt out.	With our present design we can replace the Termination bushing at site without SF6 gas handling. But no need to dismatle the RMU (No Dismantling of SF6 Gas tank)	Tender condition prevails
73	3.2.3 Incomer Load Break Switches Pg 17	A facility shall be provided with an electrical operating mechanism allowing an operator at the RMU site to operate the Load Break Switches without any modification of the operating mechanism and without de-energizing the RMU	Kindly elaborate on this operational requirement	Tender condition prevails

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74	3.5.2 Pg 22	It shall be housed in a flush mounting case, Draw out type and powered by the RMU power supply unit	We shall provide Flush mounted Fixed type relay.	Tender condition prevails
75	3.11 Enclosures Pg 29	If made from stainless steel (316L), the thickness of the enclosure panels shall be at least 1.5 mm. Otherwise the thickness of all enclosure panels shall be at least 2 m. Constructed of stainless steel (316L) according to IEC 60529 with IP rating 67 or better. Alternatively, the RMU metal parts shall be made of high thickness high tensile steel/CRCA which must be grit/shot blasted, thermally sprayed with Zinc alloy, phosphate, and subsequently painted with polyurethane based powder paint, the overall paint layer thickness including Zinc spraying shall be of the order of 120 microns.	Our Design of SF6 Gas tank is made up of SS 304 grade Non ferrite & Non magnetic steel, sealed robitically to achive IP67. Other enclosure of RMU is fabricated with 2mm thick CRCA sheet. & Gland plates used shall be of 3 mm thickness.The sheet steel shall be painted with 7 Tank process with painting thickness of 60-80 microns Degree of protection: -SF6 tank:IP 67 -Front cover:IP 2X -Cable cover:IP 3X -Enclosure:IP 54	Tender condition prevails
76		During testing, it shall be demonstrated that the RMU and RTU can interoperate successfully in all respects.	Our scope is limited Supply of RMU & Testing. Hence Supplier shall provide support for RMU's opertions & testing only during installation within the warranty period. RTU testing support shall be taken from RTU manufacturer.This shall be in scope of contractor	Tender condition prevails
77	Delivery schedule		Based on qty being high, kindly confirm the deliver schedule required	Tender condition prevails
78	1.1 Key SPB Components Pg 4	SPB shall have 2 enclosures; one for each of the circuit breakers and one for auxiliary power supply unit and the necessary SCADA monitoring and control equipment. The SCADA monitoring and control equipment includes the FRTU and communication accessories.	We shall offer Single Breaker panel as per our optimised design suitable for the requirement mentioend. As term ' Circuit breakers' is mentioend , Kindly confirm the total number of Circuit breakers per Each qty	Each SPB shall have single circuit breaker.
79	3.3 Design Details Pg 16	A suitable provision shall be made to replace only metallic portion of bushing/ part of Bushing without opening of the SF6 chamber, when cable bushing threads are burnt out. The design should ensure that the replacement process does not compromise the sealing integrity of the SF6 gas chamber.	We offer bushings that are replaceable at site & does not involve Gas handling at site .	Tender condition prevails
80	3.3 Design Details Pg 16	Minium gap between bushing to bushings inside all the cable compartments for proper cable termination will be finalized during design stage. - Minium gap inside all the cable compartments will be finalized during design stage.	Shall be as per type tested design of RMU which is being supplied to DAS projects of BESCOM	Amendment condition prevails
81	3.3 Design Details Pg 16	To avoid opening of Battery compartment by un-authorized personnel a theft proof arrangement along with annunciation with alarm sufficient decibel shall be provided	Shall be in scope of contractor .	Tender condition prevails
82	3.3 Design Details Pg 16	Access to the battery compartment shall be secured by a tamper-proof locking mechanism with sturdy enclosure. Unauthorized opening shall be detected and shall activate a local audible annunciation system with a sound level not less than 100 dB. Provision shall be made to monitor unauthorized opening and reset the activated annunciation system remotely.	Kindly elaborate on this requirement	Tender condition prevails
83	3.9 Line sensors Pg 19	The single breaker panel shall be provided with current sensors and voltage sensors. These sensors shall meet the electrical and mechanical ratings as per the relevant standards.	Kindly clarify if Voltage and current sensors are required by BESCOM instead of Conventional instrument transformers .	Tender condition prevails
84	4.1 Current Transformers Pg 20	CTs for Metering: • Material: Epoxy resin cast • Burden: 2.5VA • Ratio: 400-200/1 A • Accuracy Class: 0.2S. CTs for Protection: • Material: Epoxy resin cast • Burden: 5VA • Ratio: 400-200/1 A • Accuracy Class: 5 P 20	Metering CT : Accuracy class 0.2s can be offered for this ratio of 400-200/1A Protection CT : 2.5VA CT burden is enough to cater the load of microprocessor based relay .Using CTs of burden values higher than required also may lead to inaccurate reading (meter) or inaccurate sensing of fault / reporting conditions (As the accuracy class applies only to loads at rated VA). with accuracy class of 5P10	Tender condition prevails
85	6 Current Transformers Pg 23	Batteries: 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each. - Each Lithium Iron Phosphate (LiFePO4) battery system shall be provided with an integrated BMS providing : cell voltage and temperature monitoring, state-of-charge and state-of-health estimation, cell balancing, over/under-voltage, over/under-temperature, over-current and short-circuit protection.	Not offered as per Battery manufacturer design	Tender condition prevails
86	6 Current Transformers Pg 23	Battery compartment shall feature a theft-proof enclosure of 2mm thick stainless steel (Grade 316, IP54 rated), secured solely by M8 shear-head vandal-proof nuts/bolts. Tamper detection via NC micro-switch on seams/hinges shall trigger a 100 dB piezoelectric hooter with LED strobe (latched, DC-backed), silenced via separate external "Acknowledge" button while retaining LED, and reset via distinct "Reset" button post-rectification; alarms integrate with RTU/SCADA. All wiring, including battery links and sensors, shall use armored cut-proof cables (2.5 sq mm copper with steel braid/sheath resistant to cutters/grinders).	Not offered as per Battery manufacturer design	Tender condition prevails
87	6 Current Transformers Pg 23	The batteries shall be of Lithium Iron Phosphate (LiFePO4) type and shall have a minimum life of five (10) years at 25oC.	minimum battery life expectancy shall be as per battery manufacturer std practice. Warranty shall be from 6 months from the date of dispatch .	Amendment condition prevails
88	Cybersecurity Requirements for SPBs Protection & Metering: Pg 28	Cybersecurity Requirements for RMUs Protection & Metering:	It is mentioned as Suitability for IEC 61850 also . Kindly confirm the communication protocol. This seems to be reference to RTU . Kindly confirm	Tender condition prevails
89	10.2 Control Cabinet Pg 31	The Control Cabinet shall be similar in style and finish as the other SPB's enclosures. This shall include having a minimum protection class of IP 56 or better. It shall be tested in accordance with the latest IEC 60529 standards.	The IP shall be IP 54 .	Tender condition prevails
90	2.7 Interconnecting Cables, Wiring, Connectors, and Terminal Blocks Pg 11	Interconnecting Cables, Wiring, Connectors, and Terminal Blocks	Not in our scope	Tender condition prevails
91	3.3 Design Details Pg 16	SPB shall be suitable for mounting on its connecting cable trench	SPB Shall be mounted on plinth/foundation over cable trench necessary reference drawings of foundation shall be submitted from OEM side	Tender condition prevails
92	3.3 Design Details Pg 16	SPB design shall be such that access to live parts shall not be possible without the use of Constructor-supplied tools.	The live parts except cable termination is ensealed in SF6 gas tank for life time. We do not envisage any special tool to access the ensealed tank for our design at site	Tender condition prevails
93	3.3 Design Details Pg 16	A suitable provision shall be made to replace only metallic portion of bushing/ part of Bushing without opening of the SF6 chamber, when cable bushing threads are burnt out.	With our present design we can replace the Termination bushing at site without SF6 gas handling. But no need to dismatle the RMU (No Dismantling of SF6 Gas tank)	Tender condition prevails
94	5.2 Features and Characteristics Pg 21	It shall be housed in a flush mounting case, Draw out type and powered by the RMU power supply unit	We shall provide Flush mounted Fixed type relay.	Tender condition prevails
95	10.2 Control Cabinet Pg 31	If made from stainless steel (316L), the thickness of the enclosure panels shall be at least 1.5 mm. Otherwise the thickness of all enclosure panels shall be at least 2mm. Constructed of stainless steel (316L) according to IEC 60529 with IP rating 67 or better. Alternatively, the RMU metal parts shall be made of high thickness high tensile steel/CRCA which must be grit/shot blasted, thermally sprayed with Zinc alloy, phosphate, and subsequently painted with polyurethane based powder paint, the overall paint layer thickness including Zinc spraying shall be of the order of 120 microns.	Our Design of SF6 Gas tank is made up of SS 304 grade Non ferrite & Non magnetic steel, sealed robitically to achive IP67. Other enclosure of SPB is fabricated with 2mm thick CRCA sheet. & Gland plates used shall be of 3 mm thickness.The sheet steel shall be painted with 7 Tank process with painting thickness of 60-80 microns Degree of protection: -SF6 tank:IP 67 -Front cover:IP 2X -Cable cover:IP 3X -Enclosure:IP 54	Tender condition prevails
96	General	FRTU	As per the BOQ (Part-B), the FRTU is listed as a separate line item and is not a part of the RMU scope. Kindly confirm that the RMU shall be offered with provisioned space of 700 mm (W) × 600 mm (D) × 700 mm (H) for mounting of the FRTU, as per the standard offering to BESCOM.	Tender condition prevails

Sl.No	Tender Document Clause/Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarification
97	Pre-Qualifying Requirements	In addition , the identified OEM of the bidder, for the proposed PROJECT shall have the proven experience of having configured and integrated DAS RMU's/RTU's to SCADA -DMS- OMS master stations in any DISCOMs, during the same 5 year period .(single work or multiple wok put together).	We have supplied RMUs with integrated FRTU to various DISCOMs such as BRPL, BYPL, Torrent, and Adani. However, integration of the RMU/FRTU with the existing SCADA system at site is not in our scope. These execution works are taken up by Contractors & shall be out of OEM scope. We request you to consider PQR for OEM upto supply of RMU with FRTU .	Amended PQR condition prevails
98	Pre-Qualifying Requirements	Identified OEM of the bidder should have configured and integrated minimum of 339 DAS RMU's/RTU's to SCADA-DMS-OMS DAS master stations in any DISCOMs. OEM who is having the experience of having executed the similar projects involving SCADA - DMS - OMS technology in any DISCOMS.	We have supplied RMUs with integrated FRTU to various DISCOMs such as BRPL, BYPL, Torrent, and Adani. However, integration of the RMU/FRTU with the existing SCADA system at site is not in our scope. These execution works are taken up by Contractors & shall be out of OEM scope. We request you to consider PQR for OEM upto supply of RMU with FRTU .	Amended PQR condition prevails
99	Inspections, Tests, Training and Documentation for RMUs, SPBs and LRC & LBS 6. Training Pg 14	Training	Kindly provide clarity on the number of training batches expected by the purchaser to be conducted at the OEM factory.	Tender condition prevails
100	Inspections, Tests, Training and Documentation for RMUs, SPBs and LRC & LBS	OEM SCOPE	Our scope is limited to the supply of the equipments with provisioned space for FRTU as per the given specification. FRTU supply shall be in Contractor scope .	Tender condition prevails
101			Kindly clarify the required supervision man-days during commissioning of the RMU.	Tender condition prevails
102	5.4 Type Tests Pg 9	Bidders shall submit type test certificates for all equipment/materials conducted in an accredited third- party test laboratory. Failure to conform to this requirement may constitute grounds for rejection of the bidder's proposal. If the test certificates are older than 10 years, the tests shall be carried out again by the Contractor prior to full-scale manufacture of the deliverable RMUs, SPBs and sectionalizers and shall be performed at an accredited third-party test laboratory selected by the Contractor and approved by the Employer.	Few of the type tests for Line Reclosers are more than 10 years. We have not changed the design of the equipment after type testing and hence we request you to evaluate the design if required and check the type test reports for the equipment and accept the same. Repetition of type tests shall be infeasible .	Tender condition prevails
103	5.5 Prototype inspection Pg 9	Stage-by-Stage Prototype Inspection	Based on prior intimation & mutual discussion , stage wise inspection schedule can be decided at OEM works . However , Contractor shall discuss regarding the same with BESCOM and co-ordinate for travel / lodging , boarding etc . This shall be out of OEM scope	Tender condition prevails
104	5.8 Field Performance Tests Pg 13	If installed before warranty period this shall include unit testing by the Supplier at the time of installation of each RMUs, SPBs and Sectionalizers to ensure all components can be powered up and are in good working order.	Site testing shall not be in OEM scope.	Tender condition prevails
105	2.7.3 Terminal Blocks (pg.10)	2.7.3 Terminal Blocks (p.10) - All individual status input, AC voltage input, and control output points shall be isolatable without the need to remove wiring by means of individual terminal blocks of the removable link type. In order to avoid open circuits on the secondary side of CTs, termination blocks with by-pass bridges shall be provided for all AC current inputs. Terminal blocks shall comply with relevant IEC standards.	Please clarify which IEC standards for terminal blocks we should comply with as there are no relevant IEC standards applicable to the connector terminal blocks mounted on the side plate of the relay.	Tender condition prevails
106	3.3 & 4.3 Switch Features (pg.11)	3.3 & 4.3 Switch Features (p.11) - Puffer type switch or one that is based on a combination of the rotary and puffer arc- quenching principle.	The main technical specification mentions 'Puffer or Puffer/Rotary' types, but the GTP and BOQ explicitly require 'Solid Dielectric (HCEP or equivalent) and Vacuum (VCB)'. Please clarify which type of product is required.	Amendment condition prevails
107	Table 3-1: Line Recloser Characteristics (pg.12) Table 4-1: LBS Characteristics (pg.24)	Table 3-1: Line Recloser Characteristics (p.12) - Rated Short Circuit breaking capacity (kA) - 20kA - Rated Short Circuit making capacity (kAp) - 50kV peak - Rated Short Circuit current withstand time - 21kA for 3 sec - Degree of Protection for switching & control unit - IP68 - CT Ratio - 400:1 - Potential Transformer for measurement of voltage - Auxiliary PT/VT ratio, 2 Phase (For power supply to control panel) Table 4-1: LBS Characteristics (p.24) - Rated Short Circuit making capacity (kAp) - 31.25kV (peak) - Rated Short Circuit withstand current (kA) - 16kA for 3 sec - Degree of Protection for control unit - IP 68	1. The GTP requires a short circuit rating of 21kA, whereas the BOQ specifies 12.5kA. Please clarify this discrepancy. 2. The GTP requests an IP68 rating for the switching and control unit, but the main text specifies IP56 for the control cabinet and internal modules. Please clarify the exact IP rating required for the control cabinet. 3. The GTP specifies a CT ratio of 400/1A. Please confirm whether providing a CT ratio of 1000/1A (adjustable) for the solid dielectric recloser would be acceptable. Please confirm whether the specification requires a Class-1, 100 VA PT. 4. For voltage measurement, the specification requires a Class-1, 100 VA PT. Our design utilizes an embedded Resistive Voltage Divider (RVD), which complies with the Class-1 accuracy requirement. As the VA burden rating is not applicable to this technology, please confirm whether the RVD type is acceptable. 5. Regarding the auxiliary PT for the control power supply, the GTP specifies a 2-phase PT, whereas the main specification indicates a 1-phase PT. Please clarify. 6. For the Load Break Switch (LBS), the specification requires a short-time withstand current of 16 kA for 3 seconds. We offer 16 kA for 1 second, please accept the same.	1. Amendment condition prevails 2. For Switching unit shall be IP68 and for Control unit shall be IP56 or better. 3.Tender condition prevails 4. Acceptable 5. Two phase PT shall be acceptable 6. Amendment condition prevails
108	3.5.3 Earth Fault Function (pg.17)	3.5.3 Earth Fault Function (p.17) The earth fault setting range shall detect primary earth fault currents down to 5A to 250A The time multiplier setting shall be selectable from 0.01 to 2s in steps starting from 0.01s.	The specification requires an overcurrent pick-up setting range of 5A to 250A. However, our protection relay provides a setting range of 10A to 1600A. Please confirm whether this is acceptable.	Tender condition prevails
109	3.10 Switch Power Supply (pg.21)	3.10 Switch Power Supply (p.21) Battery standby time shall not be less than 8 hours and shall allow for a minimum of ten (10) sequences The backup battery bank shall include 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each The battery shall recharge to 80 % of its capacity in a maximum of 8 hours. 6) The minimum battery life expectancy shall be 10 years at 25°C.	1. The specification requires Lithium Iron Phosphate ($LiFePO_4$) batteries. Please confirm whether providing VRLA (Valve-Regulated Lead-Acid) batteries would be acceptable. 2. The specification requires a maximum recharge time of 8 hours. As VRLA batteries typically require more than 12 hours for full recharge, please confirm whether this extended charging time would be acceptable. 3. The specification requires a 42 Ah battery capacity. However, based on our calculation, an 18 Ah battery capacity is sufficient to support the required 8 hours of standby time and 10 switching operations. Please confirm whether offering an 18 Ah VRLA battery would be acceptable. 4. Our proposed VRLA (Valve Regulated Lead-Acid) battery is designed for a design life of 5 years at a float temperature of 25°C, in accordance with standard industrial manufacturing specifications. While VRLA batteries are highly efficient, their chemical aging process under continuous float charging typically optimizes at a 5-year replacement cycle to ensure system reliability and prevent unexpected site failures.	Tender condition prevails
110	3.10 Switch Power Supply (pg.21)	3.10 Switch Power Supply (p.21) Battery standby time shall not be less than 8 hours and shall allow for a minimum of ten (10) sequences The backup battery bank shall include 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each The battery shall recharge to 80 % of its capacity in a maximum of 8 hours.	1. The specification requires Lithium Iron Phosphate ($LiFePO_4$) batteries. Please confirm whether providing VRLA (Valve-Regulated Lead-Acid) batteries would be acceptable. 2. The specification requires a maximum recharge time of 8 hours. As VRLA batteries typically require more than 12 hours for full recharge, please confirm whether this extended charging time would be acceptable. 3. The specification requires a 42 Ah battery capacity. However, based on our calculation, an 18 Ah battery capacity is sufficient to support the required 8 hours of standby time and 10 switching operations. Please confirm whether offering an 18 Ah VRLA battery would be acceptable.	Tender condition prevails

Sl.No	Tender Document Clause/ Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarification
111	3.10 Switch Power Supply (pg.21)	3.10 Switch Power Supply (p.21) Battery compartment shall feature a theft-proof enclosure of 2mm thick stainless steel (Grade 316, IP54 rated), secured solely by M6 shear-head vandal-proof nuts/bolts. Tamper detection via NC micro-switch on seams/hinges shall trigger a 100 dB piezoelectric hooter with LED strobe (latched, DC-backed), silenced via separate external 'Acknowledge' button while retaining LED, and reset via distinct "Reset" button post-rectification; alarms integrate with RTU/SCADA. All wiring, including battery links and sensors, shall use armored cut-proof cables (2.5 sq mm copper with steel braid/sheath resistant to cutters/grinders).	The requirements specified for the battery compartment, including dedicated enclosure, tamper detection, and alarm systems, appear to be intended for external lithium battery installations. In our design, VRLA batteries are securely installed inside the main locked control cabinet, which is already monitored via SCADA door-open alarms. Therefore, a separate anti-theft battery enclosure and alarm system are not required. Please confirm whether the standard VRLA battery installation inside the control cabinet would be acceptable.	Tender condition prevails
112	Table 4-1 LBS (pg. 23)	Table 4-1 LBS Opening & Closing mechanism: Permanent magnetic actuator Mechanical operation: 10,000	The specification requires a Permanent Magnetic Actuator (PMA) and 10,000 operations for the Load Break Switch (LBS). Our LBS utilizes an LV Motor & Spring toggle mechanism and provides an M2 class mechanical endurance of 5,000 operations. Please confirm if our product is acceptable.	Tender condition prevails
113	3.10 Switch Power Supply (p.22)	3.10 Switch Power Supply (p.22) Battery charger overvoltage alarm Grounded battery or battery-charger alarm Battery Temperature	The specification requires "Battery Temperature." As the batteries are installed inside the main control cabinet without a separate battery compartment, the cabinet internal temperature represents the battery temperature. Please confirm whether monitoring the cabinet internal temperature would be acceptable to meet this requirement.	Tender condition prevails
114	General Compliance S.9.1 (p.37)	General Compliance S.9.1 (p.37) The Vendor shall ensure that all RTU of LRC & LBS, are designed and manufactured in accordance with the following international standards: IEC 62443-4-1: Secure Product Development Lifecycle Requirements. IEC 62443-4-2: Technical Security Requirements for IACS Components (Target: Capability Security Level 1 - SL1). IEC 62351: Power systems management and associated information exchange – Data and communications security.	Our controller is currently not certified against these IEC cybersecurity standards. However, it supports secure SCADA communication using DNP3.0 with Secure Authentication (SAv2 and SAv5), which provides authentication and protection against unauthorised command execution. Please confirm whether the above cybersecurity functionality would be acceptable for this project.	Tender condition prevails
115	Vendor Documentation Requirements S.9.6 (p.38)	Vendor Documentation Requirements S.9.6 (p.38) The Vendor shall submit the following documents as part of the technical bid: Hardening Guide: A step-by-step document explaining how to secure the device (e.g., changing passwords, disabling ports). Vulnerability Management Policy: A statement on how the vendor identifies and notifies customers of security vulnerabilities (CVEs) in their products. Self-Attestation: A formal letter confirming that the device meets the Capability Security Level 1 (SL-C 1) requirements of IEC 62443-4-2.	Regarding the documentation requirements under Clause S.9.6, our controller incorporates cybersecurity features including secure communication using DNP3 Secure Authentication. While the device is not formally certified under IEC 62443-4-2, we can provide relevant documentation such as device hardening guidelines and cybersecurity information for the controller. Please confirm whether this documentation and security functionality would be acceptable to meet the requirement.	Tender condition prevails
116	Pre-Qualifying Requirements 3.2 (p.10)	Pre-Qualifying Requirements 3.2 (p.10) ii) Identified OEM of the bidder should have configured and integrated minimum of 339 DAS RMU's/RTU's to SCADA-DMS-OMS DAS master stations in any DISCOMs.	The specification requires that the identified OEM of the bidder should have configured and integrated a minimum of 339 DAS RMUs/RTUs with SCADA-DMS-OMS DAS master stations in any DISCOM. As a field device OEM (Recloser/LBS/RTU manufacturer), our scope is limited to supplying and integrating the field devices with the utility SCADA system, while the SCADA system itself is typically supplied by a separate SCADA vendor. Please clarify whether experience in supplying and integrating DAS field devices with utility SCADA systems is acceptable.	Amended PQR condition prevails
117	Pre-Qualifying Requirements 5 (p.11)	Pre-Qualifying Requirements 5 (p.11) The bidder /OEM shall have a) ISO 9001-2015 or latest certification towards Software Development and integration. ISO 27001:2022 or latest certification	Applicability (Bidder vs. OEM): The specification mentions "The bidder /OEM shall have...". Please confirm if these certifications must be held by both parties, or if it is sufficient for only the Bidder to possess them to meet this requirement. As a OEM, we maintain strict information security controls integrated within our ISO 9001:2015 Quality Management System. While we do not hold a separate ISO 27001 certificate, all technical data and manufacturing processes are managed under our internal Information Security Policy. Please confirm if a Self-Declaration of Compliance can be accepted in lieu of the ISO 27001 certification for this project.	Amended PQR condition prevails
118	2.2, 3.6 Pg 8	Outdoor Features	In view of the severe weather conditions in India such as heavy rains, we propose to specify the Outdoor enclosure should be IP 55 type tested which provides better protection in heavy rains as compared to IP 54.	Tender condition prevails
119	2.2 Pg 8	Outdoor Features	We propose to add IK Coding of outdoor RMU enclosure. IK coding defines mechanical stress / impact withstand capability of outdoor enclosure. It is mandatory type test as per IEC 62271-200. For outdoor enclosure it should be IK10 (20 Joules of impact withstand).	Acceptable
120	2.6 Pg 10	Internal Arc Classification	IAC classification is not specified in tender. We propose to have minimum as below - RMU Tank - IAC AFLR 21 kA for 1 sec. Cable chamber - IAC AFLR 21 kA for 0.2s. Outdoor RMUs should have bottom exhaust.	Amendment condition prevails
121	3.2 Pg 15	Table 3.2 Circuit Breaker Parameters - 630A	CT ratio for breaker is 400-200/1A, current requirements are lower considering DT feeders, & cable size for breaker is also generally up to 240 sq.mm. hence 400A breaker rating is sufficient. Kindly accept & amend the same to 400A.	Tender condition prevails
122	3.3 Pg 15	Table 3.3 LBS Parameters - Making Capacity 50 kAp	As per IEC, 52.5 kAp for 21 kA fault system. 2.5 times of fault rms current value for 50 Hz system. 2.5 * 21 kA = 52.5 kAp.	Amendment condition prevails
123	3.3 Pg 15	Table 3.3 LBS Parameters - Rated Cable Charging Interrupting Current 25 Amps	As per IEC 62271-103 the cable charging breaking current for LBS is 10 Amps. For breaker it is 25 Amps.	Tender condition prevails
124	3.2.1 Pg 15	Design Details	Bus bar clause is not mentioned. We propose - RMU main bus bar shall be made of copper with current density less than 1.6A/sq.mm (min. 400 sq.mm. cross section area). Busbar extensibility shall be with plug-in type with flexible coupling links (solid insulated silicon links). Outer cone top/side bushings with require bolted type bus bar connections outside the SF6 gas tank should not be acceptable, as it exposes bus bar to external environment & creates additional hot spots due to additional joints.	Acceptable
125	3.2.1 Pg 15	Suitable fool-proof interlocks shall be provided to the earthing switches to prevent inadvertent or accidental closing when the cable is in charged condition and Opening cable entry door as per VPIS indication (i.e when VPIS is in ON condition).	Kindly elaborate this requirement, as it is new requirement.	Tender condition prevails
126	3.2.2 Pg 17	Earthing Switch having the specified short circuit making capacity	Earth switch making capacity shall be independent of circuit breaker. Earth switch shall be E2 category (independent of breaker).	Acceptable Acceptable
127	3.2.2 Pg 17	The Earthing Switch shall be fitted with its own operating mechanism. In this respect, manual closing shall be driven by a fast acting mechanism independent of the operator's action	For this earth switch mechanism shall be spring assisted type or snap action type, which used spring energy to close earth switch fast & prevent any opening of earth switch due to vibrations / mechanical impacts.	Acceptable
128	3.2.3	LBS	LBS should have 2 separate apertures for operation of main switch & earth switch to avoid any operator errors.	Tender condition prevails
129	3.2.5 Pg 19	Potential free contacts shall be provided with VPIS for remote monitoring.	Through metering we are already giving bus voltage information, hence additional VPIS with contact is not required.	
130	3.3.1 Pg 20	Metering class of CTs 0.2s & MFM 0.2, while the PT is still class 0.5.	Class 0.2s is required for tarrif metering which is not application of RMUs here, for check metering Class 0.5 is sufficient. Cost of maintenance is high for CT/Meter. Dimensions of the meters would be very high to accommodate inside RMU LV chamber. Logistics & maintenance of CTs is difficult, existing Meters are 0.5 so for ease of operators & spare maintenance 0.5 can be specified.	Amendment condition prevails
131	3.3.1 Pg 20	Protection class of CT 5P20 & 5 VA	Considering the distribution transformer feeder application, the o/c settings, & inrush current values 5P10 is sufficient for RMU Breaker. 5P20 is required for high current & high fault level applications, hence we request to consider 5P10. VA burden shall be as suited for the self-powered relay. Generally, 2.5 VA shall be sufficient & if required calculation can be shared.	Tender condition prevails Tender condition prevails
132	3.5.1 Pg 21	Flag Indication of Relay	since relay has front LED indication, additional flag indication is not envisaged	

Sl.No	Tender Document Clause/Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarifications
133	3.12 Pg 31	The Control Cabinet shall be similar in style and finish as the other RMU enclosures. This shall include having a minimum protection class of IP 56 or better.	Standard ratings are IP 54, however we can offer IP 55 which protects from heavy rains (water jets). IP 56 is required in case of forced/powerful water jets, hence not applicable in RMU application.	Tender condition prevails
134	3.12 Pg 31	Thermally controlled small fan for circulating air & maintain minimum temperature within the Control cabinet.	Firstly this fan for air circulation is not required, our standard design takes care of ventilation without louvers. Secondly, the fan will consume the RMU aux supply provided through aux VTs in outdoor conditions. Fan in outdoor conditions will accumulate dust from outside environement damaging the control equipment, also defeating IP (dust/rain accumulation, causing aux circuit failures).	Tender condition prevails
135	Tender Document: Page 9. Clause No.: 3 - Qualifications of the Tenderer - Point 2, 3	OEM of the Tenderer should have the similar experience in configured and integrated RMUs/RTUs to SCADA	Please confirm whether the OEMs for RMUs or RTUs shall have this qualification requirement OR exempted.	Amended PQR condition prevails
136	Tender Document: Page 9. Clause No.: 3 - Qualifications of the Tenderer - Point 4	Should submit MAF(Manufacturer's Authorimation Form)	Please confirm MAF of RMUs or RTUs to be provided. If both has to be provided, please provide the details of the lead bidders participating in the tender to approach them.	Amended PQR condition prevails
137	Technical Specification: Page 19- 3.3.1-Current Transformers	Metering CTs, 400-200/1A, Class-0.2S, 2.5VA Burden	We have considered Metering CTs with 400-200/1A, Class-0.5, 2.5VA Burden as the mentioned CTs sizes can not accommodate inside the current cable chamber	Amendment condition prevails
138	Technical Specification: Page 19- 3.3.1-Current Transformers	Protection CTs, 400-200/1A, Class-5P20, 5 VA Burden	We have considered Metering CTs with 400-200/1A, Class-5P10, 2.5VA Burden as the mentioned CTs sizes can not accommodate inside the current cable chamber	Amendment condition prevails
139	4.1 Current Transformers Pg 20	Metering CTs, 400-200/1A, Class-0.2S, 2.5VA Burden	From the past supply of SPB , where it was given with Protection CT of 0.5 Class which was convenient. Current tender specify the 0.2S class CT required which is cost and space consuming in the cable chamber. Please clarify.	Tender condition prevails
140	5.5 Proto type Test Pg 9	5.5.1 Stage-by-Stage Inspection Proto-type Inspection of RMU & SPB.	Inline with RMUs (SPB,3way,4way and 5 way DAS Compatible) in tender specification, which says the requirement of 4 stage inspection for prototype, kindly request you to specify / elaborate how these prototype inspection in 4 stage will be carried out by BESCOM.	Tender condition prevails
141	3.6 Power Supply Pg 23	Battery compartment shall feature a theft-proof enclosure of 2mm thick stainless steel (Grade 316, IP54 rated), secured solely by M8 shear-head vandal-proof nuts/bolts. Tamper detection via NC micro-switch on seams/hinges shall trigger a 100 dB piezoelectric hooter with LED strobe (latched, DC-backed), silenced via separate external "Acknowledge" button while retaining LED, and reset via distinct "Reset" button post-rectification; alarms integrate with RTU/SCADA. All wiring, including battery links and sensors, shall use armored cut-proof cables (2.5 sq mm copper with steel braid/sheath resistant to cutters/grinders).	As per the tender clause, Lithium batteries are expected instead of normal batteries for space reductionand security, over and above Hooter and Siren is expected to be given. Request you to clarify /remove the requirement of Hooter and Siren.	Tender condition prevails
142	3.6 Power Supply Pg 23	The batteries shall be of Lithium Iron Phosphate (LiFePO4) type and shall have a minimum life of five (10) years at 25oC.	In the tender document , Battery shelf life requirement was mentioned as 5 years and in brackets itsmentioned as No. 10 instead of 5. Request you clarify.	Amendment condition prevails
143	1.1 Key Sectionalizers Components Pg 4	Integrated line sensors for metering.	Integrated line sensors shall be used for indicative metering only. The primary function of these sensors are for protection & not for metering	Tender condition prevails
144	1.1 Key Sectionalizers Components Pg 4	Fault passage indicator (or equivalent).	FPI not applicable as we are offering Line Reclosers. Kindly clarify your requirement	Tender condition prevails
145	1.4 Environmental Conditions Pg 6	Altitude above mean sea level 1200m	The altitude level of the installation sites mentioend in the tender is upto or below 1000m . Kindly confirm	Acceptable
146	2.1.1 Availability Pg 7	Each sectionalizer shall exhibit an availability of greater than 99.5%. To ensure this high degree of availability, the sectionalizers shall be fabricated, assembled, and finished with workmanship of the highest production quality and shall conform to all applicable quality control standards. All materials comprising the sectionalizer shall be new, unused, and of the best industrial grade, and the sectionalizer shall incorporate all recent improvements in both design and materials. All components shall be of current production from reliable component manufacturers.	The performance and availability of the Recloser shall be dependant on various factors like Installation locations, site conditions, handling , maintenance routines etc. Hence availability is not a parameter that can be agreed upon . However warranty against manufactuing defects shall be provided for the agreed DLP .	Tender condition prevails
147	2.1.3 Life Span Pg 7	Each sectionalizer shall have a design life of at least 20 years from the date of commission	As there might be delays in commissioning in few specific cases due to site challenges etc which is unrelated to manufacturer , we agree to comply to design life of at least 20 years from the date of supply .	Tender condition prevails
148	2.7.3 Terminal Blocks Pg 10		Shall be as per manufacturer standard practice	Tender condition prevails
149	3. Line Recloser Characteristics Pg 11	Line Recloser (LRC) shall be a SCADA-ready device equipped with circuit breakers, protection relay, auto-reclose circuitry, switch position indicator, line sensors consisting of PTs and CTs, fault passage indicator (or equivalent), and metering devices or circuitry providing voltage, current, power, energy, and power factor readings. In addition, each LRC shall be equipped with an auxiliary transformer, control cabinet, local control panel, RTU, switch power supply, all necessary cables, connectors, and terminal blocks, and all other accessories such as insulators and cross-arms required to erect the LRC components on available pole structures.	FPI not applicable as we are offering Line Reclosers As mentioend , Integrated line sensors shall be used for indicative metering only. The primary function of these sensors are for protection & not for metering	Tender condition prevails
150	3.3 Switch Features Pg 11	Switch operation manually without power supply using a NEMA-head (or equivalent) hook stick and electrically using an internal operating mechanism and control unit.	Only tripping shall be available through Hook stick & supply of hook stick shall be in client scope.	Tender condition prevails
151	3.3 Switch Features Pg 11	Puffer type switch or one that is based on a combination of the rotary and puffer arc-quenching principle.	not applicable as we are offering vacuum type interrupter	Acceptable
152	3-1 – Rated Short Circuit breaking capacity 20 kA Pg 12	Rated short-circuit breaking capacity ≥ 20 kA (11 kV feeder LRC)	in BOQ , its mentioend as 12.5kA. Our Reslosers are rated uptpo 12.5kA-3s. This fault level shall be sufficient for the requirements. Kindly confirm the fault level of 12.5kA	Acceptable
153	Table 3-1: Line Recloser Characteristics Pg 12	Rated Short Circuit breaking capacity (kA - 21kA for 3 sec	in BOQ , its mentioend as 12.5kA. Our Reslosers are rated uptpo 12.5kA-3s. This fault level shall be sufficient for the requirements. Kindly confirm the fault level of 12.5kA	Acceptable
154	Table 3-1: Line Recloser Characteristics Pg 12	CT type accuracy - 5P20	CT type accuracy Shall be 5P10	Tender condition prevails
155	Table 3-1: Line Recloser Characteristics Pg 12	Voltage & burden	230V / 110V can be offered& burden shall be 300VA	Tender condition prevails
156	Table 3-1: Line Recloser Characteristics Pg 12	Potential Transformer for measurement of voltage	Instead of PT (Conventional Instrument transformers) , Voltage sensor shall be offered for protection. Kindly confirm	Voltage & Current sensors shall be acceptable for both protection and metering
157	Table 3-1: Line Recloser Characteristics Pg 12	Operating Sequence /Duty cycle	We confirm that The operating cycle of our recloser shall be : O-0.2s-CO-2s-CO-2s-CO	Acceptable

Sl.No	Tender Document Clause/Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarification
158	Table 3-1: Line Recloser Characteristics Pg 12	Degree of Protection for switching & control unit - IP68	IP68 not applicable for Line Recloser. We shall offer IP55 for outdoor installation .	Amendment condition prevails
159	Table 3-1: Line Recloser Characteristics Pg 12	Dust-tight and waterproof switch enclosures of stainless steel type 316L. Gasket and bolted seals shall not be used on pressurized tanks. Bushings, however, may be sealed using "O" rings. Water condensation shall be prevented.	We shall offer enclosure with SS 304 grade and shall be suitable for IP55 Degree of protection	Tender condition prevails
160	Table 3-1: Line Recloser Characteristics Pg 12	Enclosures with standard protection against corrosion. The finishing coat shall be grey (RAL 7032).	As we are offering SS enclosure , painting shall not be applicable	Tender condition prevails
161	Table 3-1: Line Recloser Characteristics Pg 12	Manual operating handle with operating hook(s) suitable for use with a NEMA-head (or equivalent) hook stick from ground level. At least one hook stick of suitable length shall be provided for every 5 LRCs.	supply of hook stick shall be in client scope.	Tender condition prevails
162	Table 3-1: Line Recloser Characteristics Pg 12	Auxiliary contacts for status indicators and signals.	As per Manufacturer std	Tender condition prevails
163	Table 3-1: Line Recloser Characteristics Pg 12	One (1) bar-tap tee connector per main circuit lead for connecting to ACSR conductors ofsize Coyote and Rabbit.	please brief the requirement	Amendment condition prevails
164	Table 3-1: Line Recloser Characteristics Pg 12	Pressure releasing device for protection against pressure build-up higher than the permissible design pressure, but for switches of dead-tank type only.	Not applicable for our design	Amendment condition prevails
165	3.4 Line Sensor Features Pg 12	3.4.1 Current Sensors & 3.4.2 Voltage Sensors	Shall be as per manufacturer standard practice	Tender condition prevails
166	3.5 Protection Features Pg 12	A suitable low pass filter with 3rd harmonic rejection shall be supplied. Both the SEF function and its filter shall be described in the Contractor's bid.	Low pass filter Not in our scope of supply	Tender condition prevails
167	3.5.3 Earth Fault Function Pg 17	regarding CT inputs in relay	Our offered relay for Line recloser has 4 CT inputs . 3 shall be used for phase , 1 for sensitive earth fault and earth fault will be derived from phase CT.	Tender condition prevails
168	3.6 Local Control Panel Pg 18	Separate discrepancy switches for opening and closing the LRC switches. Discrepancy switch operation shall be possible using the backup power supply system when the AC power supply is off.	As we are offering mechanically ganged equipment, discrepapy switches not applicable	Tender condition prevails
169	3.7 Distribution Automation System Interface Pg 19	The LBS shall be monitored and controlled by the DAS. In this respect, the LBS's integral RTU shall be capable of interfacing with the radio/modem to be provided and installed in the LBS control cabinet.	RTU unit for Recloser will be offered as separate outdoor unit mountable similar to the control panel mentioned due to space constraint in the offered Local control panel. Kindly confirm regarding this	Tender condition prevails
170	3.8 Control Cabinet Pg 19	All electronic parts shall be enclosed in modules that protect them from entry of small insects. The power supply module in particular shall be physically separated from all other modules.	We shall offer enclosure with for IP55 Degree of protection .	Tender condition prevails
171	3.8 Control Cabinet Pg 19	protection level of IP 56 or better. The control cabinet itself shall have an overall	It shall be IP55 for outdoor installation	Tender condition prevails
172	3.8 Control Cabinet Pg 19	A number lock/Digital lock of adequate size shall be provided to Control Cabinet	We can offer standard padlock . Additionally , if digital lock is required mandatorily , it shall be in scope of client	Tender condition prevails
173	3.9 Auxiliary Power Transformer Pg 20	The LRC shall provide a single-phase auxiliary power transformer of outdoor cyclo-aliphatic resin cast type. The transformer shall be suitable for phase-to-ground connection to the 11-kV distribution network in order to provide a 230 VAC, 500vA output for distribution to the SPS	230V / 110V can be offered & burden shall be 300VA	Tender condition prevails
174	3.10 Switch Power Supply Pg 21	The backup battery bank shall include 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each.	Shall be as per battery manufacturer standard practice. However , it shall be of 26Ah	Tender condition prevails
175	3.10 Switch Power Supply Pg 21	The minimum battery life expectancy shall be 10 years at 25oC.	minimum battery life expectancy shall be as per battery manufacturer std practice. Warranty shall be from 6 months from the date of dispatch .	Tender condition prevails
176	3.10 Switch Power Supply Pg 21	Battery chargers shall be provided with the following alarms as a minimum	We can only provide indications : BATTERY HEALTHY & BATTERY UNHEALTHY	Tender condition prevails
177	3.11 Measurement Functions Pg 22	The equipment supplied with the LRC shall meet the following requirements with respect to the measurements to be derived from primary voltage and current values	The below mentioned measurement options are available in the relay:- a. Three-phase current measurement b. Sequence current measurement c. Residual current measurement d. Three-phase voltage measurement e. Sequence voltage measurement f. Three-phase power and energy measurement g. Single-phase power and energy measurement h. Frequency measurement i. Load profile record	Tender condition prevails
178	Table 4-1: Load Break Switch Characteristics Pg 23	Rated short-time withstand current for 3 second - 16kA	Our Reslosers are rated uptpo 12.5kA-3s This fault level shall be sufficient for the requirements. Kindly accept the offered fault level of 12.5kA	Amendment condition prevails
179	4.6 Distribution Automation System Interface Pg 27	The LBS shall be monitored and controlled by the DAS. In this respect, the LBS's integral RTU shall be capable of interfacing with the radio/modem to be provided and installed in the LBS control cabinet.	We offer modem in our Line recloser & Numerical relay with protection features & necessary protocol. Separate RTU unit for Recloser cannot be offered due to space issue. Kindly confirm regarding this	Tender condition prevails
180	5. Remote Terminal Units Pg 32		We offer modem in our Line recloser & Numerical relay with protection features & necessary protocol. Separate RTU unit for Recloser cannot be offered due to space issue. Kindly confirm regarding this	Tender condition prevails
181	5.9 Cybersecurity Requirements for LRC & LBS: Pg 37		Cybersecurity features shall be as per Modem Manufacturer standards	Tender condition prevails
182	1.2 RING MAIN UNIT Pg 5	Each RMU shall be equipped with main-line load break switches and a fault passage indicator (FPI). Furthermore, to protect each of its lateral circuits, it shall be equipped with a corresponding set of circuit breakers and numerical relays. The RMU interrupters shall be enclosed in an SF6 and the RMU will include all necessary voltage and current sensors and potential-free contacts	Kindly clarify if Voltage and current sensors are required by BESCOM instead of Conventional instrument transformers .	Tender condition prevails
183	3.2.1 Design details Pg 15	A suitable provision shall be made to replace only metallic portion of bushing/ part of Bushing without opening of the SF6 chamber, when cable bushing threads are burnt out. The design should ensure that the replacement process does not compromise the sealing integrity of the SF6 gas chamber.	We offer bushings that are replaceable at site & does not involve Gas handling at site .	Amendment condition prevails
184	3.2.1 Design details Pg 15	Minium gap between bushing to bushings inside all the cable compartments for proper cable termination will be finalized during design stage. • Minium gap inside all the cable compartments will be finalized during design stage.	Shall be as per type tested design of RMU which is being supplied to DAS projects of BESCOM	Tender condition prevails
185	3.2.1 Design details Pg 15	Access to the battery compartment shall be secured by a tamper-proof locking mechanism with sturdy enclosure. Unauthorized opening shall be detected and shall activate a local audible annunciation system with a sound level not less than 100 dB. Provision shall be made to monitor unauthorized opening and reset the activated annunciation system remotely.	Kindly elaborate on this requirement	Tender condition prevails
186	3.3 Line sensors Pg 19	The RMU shall be provided with current sensors and voltage sensors. These sensors shall meet the electrical and mechanical ratings as per the relevant standards	Kindly clarify if Voltage and current sensors are required by BESCOM instead of Conventional instrument transformers .	

Sl.No	Tender Document Clause/Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarification
187	3.3.1 CT ratio Pg 20	**CTs for Metering:** • Material: Epoxy resin cast • Burden: 2.5VA • Ratio: 400-200/1 A • Accuracy Class: 0.2S. **CTs for Protection:** • Material: Epoxy resin cast • Burden: 5VA • Ratio: 400-200/1 A • Accuracy Class: 5 P 20.	**Metering CT : Accuracy class 0.2s can be offered for this ratio of 400-200/1A** **Protection CT : 2.5VA CT burden is enough to cater the load of microprocessor based relay .Using CTs of burden values higher than required also may lead to inaccurate reading (meter) or inaccurate sensing of fault / reporting conditions (As the accuracy class applies only to loads at rated VA). with accuracy class of 5P10**	**Amendment condition prevails**
188	3.6 Battery Pg 23	**The batteries shall be of Lithium Iron Phosphate (LiFePO4) type and shall have a minimum life of five (10) years at 25oC.**	**minimum battery life expectancy shall be as per battery manufacturer std practice. Warranty shall be from 6 months from the date of dispatch .**	**Amendment condition prevails**
189	3.8 Cybersecurity Requirements for RMUs Protection & Metering: Pg 26	**Cybersecurity Requirements for RMUs Protection & Metering:**	**It is mentioned as Suitability for IEC 61850 also . Kindly confirm the communication protocol.**	**Tender condition prevails**
190	3.12 IP Page 30	**The Control Cabinet shall be similar in style and finish as the other RMU enclosures. This shall include having a minimum protection class of IP 56 or better.**	**This seems to be reference to RTU . Kindly confirm**	
191	3.2.1 Design Details Pg 15	**The RMU design shall be such that access to live parts shall not be possible without the use of Constructor-supplied tools.**	**The IP shall be IP 54 .**	**Tender condition prevails**
192	3.2.1 Design Details Pg 15	**A suitable provision shall be made to replace only metallic portion of bushing/ part of Bushing without opening of the SF6 chamber, when cable bushing threads are burnt out.**	**The live parts except cable termination is ensealed in SF6 gas tank for life time. We do not envisage any special tool to access the ensealed tank for our design at site**	**Tender condition prevails**
193	3.2.3 Incomer Load Break Switches Pg 17	**A facility shall be provided with an electrical operating mechanism allowing an operator at the RMU site to operate the Load Break Switches without any modification of the operating mechanism and without de-energizing the RMU**	**With our present design we can replace the Termination bushing at site without SF6 gas handling. But no need to dismatle the RMU (No Dismantling of SF6 Gas tank)**	**Tender condition prevails**
194	3.5.2 Pg 22	**It shall be housed in a flush mounting case, Draw out type and powered by the RMU power supply unit**	**Kindly elaborate on this operational requirement**	**Tender condition prevails**
195	3.11 Enclosures Pg 29	**If made from stainless steel (316L), the thickness of the enclosure panels shall be at least 1.5 mm. Otherwise the thickness of all enclosure panels shall be at least 2 m.** **Constructed of stainless steel (316L) according to IEC 60529 with IP rating 67 or better. Alternatively, the RMU metal parts shall be made of high thickness high tensile steel/CRCA which must be grit/shot blasted, thermally sprayed with Zinc alloy, phosphate, and subsequently painted with polyurethane based powder paint, the overall paint layer thickness including Zinc spraying shall be of the order of 120 microns.**	**We shall provide Flush mounted Fixed type relay. Our Design of SF6 Gas tank is made up of SS 304 grade Non ferrite & Non magnetic steel, sealed robitically to achive IP67. Other enclosure of RMU is fabricated with 2mm thick CRCA sheet. & Gland plates used shall be of 3 mm thickness.The sheet steel shall be painted with 7 Tank process with painting thickness of 60-80 microns Degree of protection: -SF6 tank:IP 67 -Front cover:IP 2X -Cable cover:IP 3X -EnclosureIP 54**	**Tender condition prevails**
196	2.7.3 Terminal Blocks (pg.10)	**2.7.3 Terminal Blocks (p.10) - All individual status input, AC voltage input, and control output points shall be isolatable without the need to remove wiring by means of individual terminal blocks of the removable link type. In order to avoid open circuits on the secondary side of CTs, termination blocks with by-pass bridges shall be provided for all AC current inputs. Terminal blocks shall comply with relevant IEC standards.**	**Please clarify which IEC standards for terminal blocks we should comply with as there are no relevant IEC standards applicable to the connector terminal blocks mounted on the side plate of the relay.**	**Tender condition prevails**
197	3.3 & 4.3 Switch Features (pg.11)	**3.3 & 4.3 Switch Features (p.11) - Puffer type switch or one that is based on a combination of the rotary and puffer arc- quenching principle.**	**The main technical specification mentions 'Puffer or Puffer/Rotary' types, but the GTP and BOQ explicitly require 'Solid Dielectric (HCEP or equivalent) and Vacuum (VCB)'. Please clarify which type of product is required.**	**Amendment condition prevails**
198	Table 3-1: Line Recloser Characteristics (pg.12) Table 4-1: LBS Characteristics (pg.24)	**Table 3-1: Line Recloser Characteristics (p.12) - Rated Short Circuit breaking capacity (kA) - 20kA - Rated Short Circuit making capacity (kAp) - 50kV peak - Rated Short Circuit current withstand time - 21kA for 3 sec - Degree of Protection for switching & control unit - IP68 - CT Ratio - 400:1 - Potential Transformer for measurement of voltage - Auxiliary PT/VT ratio, 2 Phase (For power supply to control panel) Table 4-1: LBS Characteristics (p.24) - Rated Short Circuit making capacity (kAp) - 31.25kV (peak) - Rated Short Circuit withstand current (kA) - 16kA for 3 sec - Degree of Protection for control unit - IP 65**	**1. The GTP requires a short circuit rating of 21kA, whereas the BOQ specifies 12.5kA. Please clarify this discrepancy. 2. The GTP requests an IP68 rating for the switching and control unit, but the main text specifies IP56 for the control cabinet and internal modules. Please clarify the exact IP rating required for the control cabinet. 3. The GTP specifies a CT ratio of 400/1A. Please confirm whether providing a CT ratio of 1000/1A (adjustable) for the solid dielectric recloser would be acceptable. 4. For voltage measurement, the specification requires a Class-1, 100 VA PT. Our design utilizes an embedded Resistive Voltage Divider (RVD), which complies with the Class-1 accuracy requirement. As the VA burden rating is not applicable to this technology, please confirm whether the RVD type is acceptable. 5. Regarding the auxiliary PT for the control power supply, the GTP specifies a 2-phase PT, whereas the main specification indicates a 1-phase PT. Please clarify. 6. For the Load Break Switch (LBS), the specification requires a short-time withstand current of 16 kA for 3 seconds. We offer 16 kA for 1 second, please accept the same.**	**1. Amendment condition prevails 2. For Switching Tank shall be IP68 and for Control unit shall be IP56 or better. 3.Tender condition prevails 4. Acceptable 5. Two phase PT shall be acceptable 6. Amendment condition prevails**
199	3.5.3 Earth Fault Function (pg.17)	**3.5.3 Earth Fault Function (p.17) The earth fault setting range shall detect primary earth fault currents down to 5A to 250A The time multiplier setting shall be selectable from 0.01 to 2s in steps starting from 0.01s.**	**The specification requires an overcurrent pick-up setting range of 5A to 250A. However, our protection relay provides a setting range of 10A to 1600A. Please confirm whether this is acceptable.**	**Tender condition prevails**
200	3.10 Switch Power Supply (pg.21)	**3.10 Switch Power Supply (p.21) Battery standby time shall not be less than 8 hours and shall allow for a minimum of ten (10) sequences The backup battery bank shall include 2 Numbers of Lithium Iron Phosphate (LiFePO4) (LFP) 12 VDC, 42Ah each The battery shall recharge to 80 % of its capacity in a maximum of 8 hours.**	**1. The specification requires Lithium Iron Phosphate ($LiFePO_4$) batteries. Please confirm whether providing VRLA (Valve-Regulated Lead-Acid) batteries would be acceptable. 2. The specification requires a maximum recharge time of 8 hours. As VRLA batteries typically require more than 12 hours for full recharge, please confirm whether this extended charging time would be acceptable. 3. The specification requires a 42 Ah battery capacity. However, based on our calculation, an 18 Ah battery capacity is sufficient to support the required 8 hours of standby time and 10 switching operations. Please confirm whether offering an 18 Ah VRLA battery would be acceptable.**	**Tender condition prevails**
201	3.10 Switch Power Supply (pg.21)	**3.10 Switch Power Supply (p.21) Battery compartment shall feature a theft-proof enclosure of 2mm thick stainless steel (Grade 316, IP54 rated), secured solely by M8 allen-bar-head vandal-proof nuts/bolts. Tamper detection via NC micro-switch on seams/hinges shall trigger a 100 dB piezoelectric hooter with LED strobe (latched, DC-backed), silenced via separate external "Acknowledge" button while retaining LED, and reset via distinct "Reset" button post-rectification; alarms integrate with RTU/SCADA. All wiring, including battery links and sensors, shall use armored cut-proof cables (2.5 sq mm copper with steel braid/sheath resistant to cutters/grinders).**	**The requirements specified for the battery compartment, including dedicated enclosure, tamper detection, and alarm systems, appear to be intended for external lithium battery installations. In our design, VRLA batteries are securely installed inside the main locked control cabinet, which is already monitored via SCADA door-open alarms. Therefore, a separate anti-theft battery enclosure and alarm system are not required. Please confirm whether the standard VRLA battery installation inside the control cabinet would be acceptable.**	**Tender condition prevails**
202	Table 4-1 LBS (pg. 23)	**Table 4-1 LBS Opening & Closing mechanism: Permanent magnetic actuator Mechanical operation: 10,000**	**The specification requires a Permanent Magnetic Actuator (PMA) and 10,000 operations for the Load Break Switch (LBS). Our LBS utilizes an LV Motor & Spring toggle mechanism and provides an M2 class mechanical endurance of 5,000 operations. Please confirm if our product is acceptable.**	**Tender condition prevails**
203	3.10 Switch Power Supply (p.22)	**3.10 Switch Power Supply (p.22) Battery charger overvoltage alarm Grounded battery or battery-charger alarm Battery Temperature**	**The specification requires "Battery Temperature." As the batteries are installed inside the main control cabinet without a separate battery compartment, the cabinet internal temperature represents the battery temperature. Please confirm whether monitoring the cabinet internal temperature would be acceptable to meet this requirement.**	**Tender condition prevails**
204	General Compliance 5.9.1 (p.37)	**General Compliance 5.9.1 (p.37) The Vendor shall ensure that all RTU of LRC & LBS, are designed and manufactured in accordance with the following international standards: IEC 62443-4-1: Secure Product Development Lifecycle Requirements. IEC 62443-4-2: Technical Security Requirements for IACS Components (Target: Capability Security Level 1 - SL1). IEC 62351: Power systems management and associated information exchange – Data and communications security.**	**Our controller is currently not certified against these IEC cybersecurity standards. However, it supports secure SCADA communication using DNP3.0 with Secure Authentication (SAv2 and SAv5), which provides authentication and protection against unauthorized command execution. Please confirm whether the above cybersecurity functionality would be acceptable for this project.**	**Tender condition prevails**
205	Vendor Documentation Requirements 5.9.6 (p.38)	**Vendor Documentation Requirements 5.9.6 (p.38) The Vendor shall submit the following documents as part of the technical bid: Hardening Guide: A step-by-step document explaining how to secure the device (e.g., changing passwords, disabling ports). Vulnerability Management Policy: A statement on how the vendor identifies and notifies customers of security vulnerabilities (CVEs) in their products. Self-Attestation: A formal letter confirming that the device meets the Capability Security Level 1 (SL-C 1) requirements of IEC 62443-4-2.**	**Regarding the documentation requirements under Clause 5.9.6, our controller incorporates cybersecurity features including secure communication using DNP3 Secure Authentication. While the device is not formally certified under IEC 62443-4-2, we can provide relevant documentation such as device hardening guidelines and cybersecurity information for the controller. Please confirm whether this documentation and security functionality would be acceptable to meet the requirement.**	**Tender condition prevails**

Sl.No	Tender Document Clause/Page No.	Description	Clarification sought by prospective Bidder	BESCOM Clarification
206	Clause 13 (p.21)	EMD Balance Rs. 2,26,69,342.00 (Rupees Two crore Twenty Six Lakh Sixty Nine Thousand Three hundred and Forty Two only) in the form of Bank Guarantee issued either by a Nationalized/Scheduled bank/e-Bank Guarantee (e-BG's from the Nationalized/Scheduled banks integrated with NeSL)	We request you to allow Insurance Surety Bond as per GoK / GoI Circulars. Insurance Surety Bond is being allowed in recently floated BESCOM tenders (OH to UG).	Amendment condition prevails
207	Clause 29 (p.27)	Security deposit/Contract Performance Guarantee: The successful Tenderer shall deliver to BESCOM a Security Deposit/Contract Performance Guarantee in the form of Bank Guarantee from the Nationalized/Scheduled commercial Banks	We request you to allow Insurance Surety Bond as per GoK / GoI Circulars. Insurance Surety Bond is being allowed in recently floated BESCOM Tenders (OH to UG).	Amendment condition prevails
208	Clause 1.5A Qualification Information (p.31)	Value of works remaining to be completed (Excluding GST) (Rs. Lakhs) (Attach Certificates from Engineers –in- Charge)	In addition to the tender clause, we request you to add the following clause also: "The statements showing the value of existing commitments and ongoing works, as well as the stipulated period of completion remaining for each of the works listed, should be verified and certified by a Chartered Accountant / Cost Auditor."	Tender condition prevails
209	Clause 13 SCC (p.80)	Terms of Payment	Since Performance Security is being submitted covering the entire DLP period, we request you to kindly modify the Payment Terms as per the Annexure.	Amended Payment schedule prevails